Applicant: Ken-ichi Nakayama et al. Attorney's Docket No.: 11283-019US1 / PH-935PCT-

US

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Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

- (Currently Amended) An <u>isolated</u> protein of the following (a) or (b):
 (a) a protein comprising[[:]] an amino acid sequence represented by SEQ ID NO: 1[[;]]
 (b) a protein comprising an amino acid sequence derived from the amino acid sequence of SEQ ID NO: 1 by deletion, substitution, addition, or insertion of one or several amino acid residues, and having GDP 4 keto 6 deoxy D mannose 3, 5 epimerase 4 reductase activity.
- (Currently Amended) An <u>isolated</u> DNA encoding a protein of the following (a) or (b):

 (a) a protein comprising[[::]] an amino acid sequence represented by SEQ ID NO: 1 [[;]]
 (b)a protein comprising an amino acid sequence derived from the amino acid sequence of SEQ ID NO: 1 by deletion, substitution, addition or insertion of one or several amino acid residues, and having GDP 4 keto 6 deoxy D mannose 3, 5 epimerase 4 reductase activity.
- 3. (Currently Amended) The <u>isolated DNA</u> of claim 2 which comprises a nucleotide sequence represented by SEQ ID NO: 2.
- 4. (Original) An expression vector which comprises the DNA of claim 2 or 3.
- 5. (Original) A transformant which is transformed with the expression vector of claim 4.
- 6. (Original) A process for producing GDP-4-keto-6-deoxy-D-mannose-3, 5-epimerase-4-reductase, which comprises culturing the transformant of claim 5 in a medium and collecting GDP-4-keto-6-deoxy-D-mannose-3, 5-epimerase-4-reductase from the obtained culture.

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7. (Original) A transformant which is transformed with the expression vector of claim 4 and an expression vector comprising DNA encoding GDP-D-mannose-4, 6-dehydratase.

- 8. (Original) A process for converting GDP-D-mannose into GDP-L-fucose using the transformant of claim 7.
- 9. (Original) A process for producing GDP-L-fucose which comprises culturing the transformant of claim 7 together with GDP-D-mannose in a medium, and collecting GDP-L-fucose from the obtained culture.